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RESEARCH ARTICLE

Application of Web 2.0 in academic libraries: a study of college libraries in Mumbai

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Abstract**Purpose**

– This paper aims to provide an overview of the application of Web 2.0 technologies in college libraries in Mumbai. The focus of the research was to explore tools of Web 2.0 technologies applied in such libraries as well as to find out problems behind non-application of such cost-effective tool in college libraries.

Design/methodology/approach

– A survey was conducted using Google Forms based LIS e-mail discussion groups. College librarians serving in all types of college libraries in Mumbai participated in the study.

Findings

– Blogs and social networking sites were the most popular Web 2.0 technology applied by librarians. Lack of computer literacy, lack of awareness about the utilities of web 2.0 and non-availability of computers and internet facilities were the major hindrances of Web 2.0 adoption by librarians. Awareness and training programs could enable librarians to cope with Web 2.0 technologies.

Practical implications

– This study will create awareness among LIS professionals toward the use of advanced technology in their professional environment. The findings of this study will be a guidance tool for workshop and training organizers to provide essential skills to the library professionals for the successful adoption of Web 2.0 in college libraries. The paper concludes by offering best practices for implementing Web 2.0 tools in academic libraries.

Originality/Value

– This is the original study conducted on the adoption of Web 2.0 technologies in college libraries in Mumbai by using questionnaire as a tool of data collection and by studying different library blogs.

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INTRODUCTION

The services provided by traditional libraries were “place-based” services. Library users used to visit the library to consult the catalogue and to use the physical collection of books, journals CD’s, etc. With the advent of information technologies user’s expectations about the library services are changing. College libraries receive young users, who

are more familiar and comfortable with these changing forms of collection and expects libraries to provide virtual services rather than “place-based” services. Web 2.0 tools have overcome barriers to communication and the distance between the libraries and users (Stuart, 2010). Web 2.0 applications encourage patrons to be an integral part of the virtual community by sharing their ideas, thoughts, feelings and other content. They allow patrons to contribute to the maintenance of catalogues, review resources, locate and share relevant information with other patrons and society (Farkas, 2007). Web 2.0 concepts have led to the development and evolution of web-based communities, hosted services and applications such as social networking sites, video-sharing sites, wikis and blogs. Web 2.0 tools facilitate sharing, networking and disseminating information among friends and other professional groups.

Objectives of the study:

To find out college librarians views about application of web 2.0 tools

To identify web tools used in college libraries

To study the purpose of using these technologies

To find out technical problems face by them while applying web 2.0 tools in libraries.

To examine features of web 2.0 tools, used in college libraries.

Web 2.0

Tim O’ Reilly coined the phrase web 2.0 in his article ‘what is web 2.0’ in the year 2005. Web 2.0 refers to new stage of development in the World Wide Web. Web 2.0 consists of a set of Internet technologies that facilitate open and participatory work. Second generation of internet based services that let people collaborate and share information online.

Web was formerly mainly static and non-interactive and most websites were created by universities, businesses and research institutions. Web 2.0 is dynamic, interactive and much of the web activity is about sharing information and ideas. This second generation of web is also known as read/write web.

Web 2.0 Tools and its usefulness in academic libraries.

Web 2.0 allows creating and publishing digital media through the internet.

- Contribute, share, collaborate through;
 - **Text** (Blogs, wikis): Blogs are being used to exchange information, and to share views on a topic in chronological order, like a personal diary. Blogs are hosted on public domains, which are available without charge. Blogs in academic libraries could be used to facilitate communication with patrons, for promoting new books by using Shelfari on blogs, for providing current awareness services and to provide book reviews of new books. Wikis are being used as a tool for creating, authoring and allowing a group of people to edit website content collaboratively. Libraries and academic institutions have been using wikis for group learning, for sharing knowledge, experiences and open source products, and also to provide subject guides (Frumkin, 2005; King & Porter, 2007; Payne, 2008).
 - **Images** (Flickr): Albums can be created for different events, to share through Flickr, Picassa, Pinterest, etc. Libraries can demonstrate the institutional history through use of such web albums to attract users.
 - **Videos/ Vodcast** (Youtube): A vodcast is mainly used to deliver videos on demand to patrons over the web. Certain information, such as physical layout of the library, general information about searching skills or techniques, software manuals or practical instructions about the use of library software can be explained effectively through visual clips. Video on demand services such as YouTube (see <http://youtube.com>) is a multimedia based website where online videos and flash movies can be shared and viewed at any time.
 - **Audio** (Podcasts): The word podcast comes from the amalgamation of the words iPod and broadcast. However, the ‘pod’ is a bit of a misnomer as podcasts can also be played on computers and mp3 players. Audio files can be shared through Podcasts. Students can listen to lecture through podcast instead of reading in the text format. Audio streams of lectures and book readings may be beneficial for students who are visually challenged or have poor reading and comprehension competencies. Podcasts are frequently used to broadcast speeches and interviews of important personalities.

- **PPT presentations(Slideshare):** Slideshare will allow professionals to share the PPT presentations on particular aspects to guide users. These PPT's can be further embedded to blogs and websites from slideshare.
- **RSS Really Simple Syndication** is family of web formats used to publish information about frequently updated works such as blog entries, news feeds, live audio and video in the standard format. Instead of checking websites for daily updates, people can subscribe to the website RSS feed and get noticed as and when new content is added to the website.
- **Bookmarking and Tagging** Social bookmarking applications enable people to save or bookmark their favorite websites, blog posts, images, articles or podcasts with the required title or description in online space. Information professionals and teachers can provide web citations or bibliographies of e-content through social bookmarking to students. Here is an example of Del.icio.us .com. After bookmarking a page, user have the option of adding "tags" to the bookmark. A tag is a label that helps user to identify a bookmark they have made. These tags are used to help better categorization of while searching them in future.
- **Sharing, Social networking** Social networks have enabled people, companies, institutions and organizations share information on different levels. A profile is created where documents, pictures, music and video clips are downloaded; emails can be send; blogs can be posted and instant messaging is possible. Social networking contributes to the expansion of an increasing number of online communities. Social networking could allow librarians and users not only to communicate, but also to add and share resources dynamically. Libraries can create their own account on social networking sites and patrons can access the library page by searching from their account to see what other patron might have in common to their information needs and libraries can suggest resources to patrons.

Importance of web 2.0 tools

The web 2.0 tools have a pervasive impact on society and especially on the young generation. They allow users to create, describe, post, search, collaborate, share and communicate online content in various forms, ranging from music and bookmarks to photographs and documents. The Horizon Report (2007) has highlighted that users can create content via web 2.0 tools; social networking using mobile phones will have considerable influence on higher education.

Research methodology

The researcher applied survey method for collecting data for this study. The method of convenience sampling was used in this study. This sampling method is based on non-probabilistic sampling technique where subjects are selected in an unstructured manner from the population frame. The part of the population that is closed to the hands of the investigator is selected.

The present study investigates awareness, views of librarians regarding web 2.0 utilities and use of web 2.0 tools in college libraries in Mumbai. The researcher conducted on online survey using Google forms. An online questionnaire was send to 60 college librarians in Mumbai. 35 college librarians replied to the survey. Therefore the response rate is 58.33% to the online questionnaire.

Findings and observations from data collection

The questions initiated from getting librarians views about the utilities of web 2.0 in libraries as a tool for marketing library services.

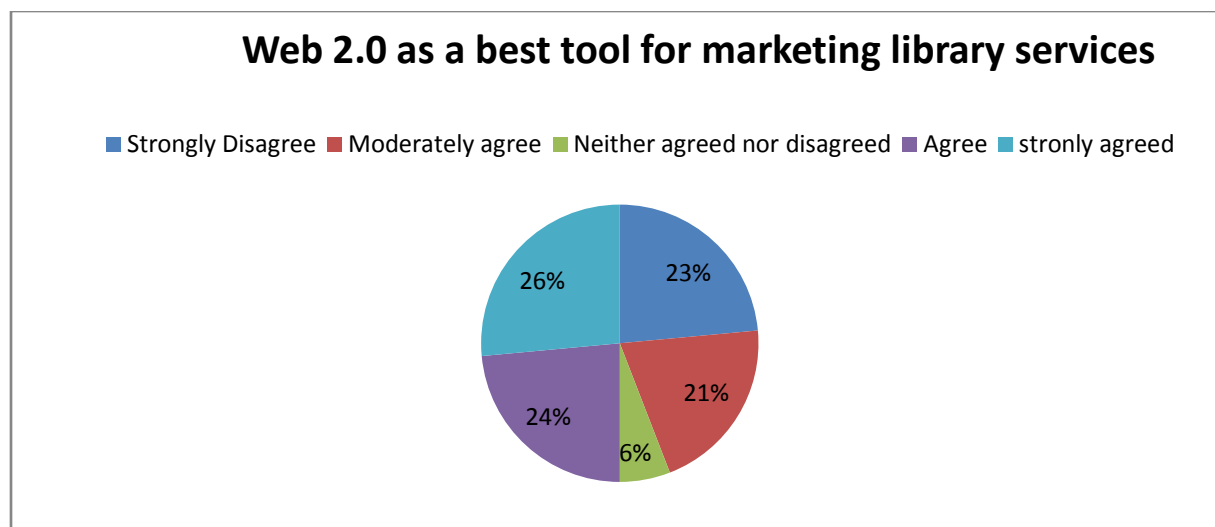


Figure: 1 - Web 2.0 as a best tool for marketing library services

Figure: 1 shows that 50% of the responders are agreed for the same. 21% were moderately agreed for the statement. 23% responders were strongly disagreed to the statement and 6% were neither agreed nor disagreed to the statement.

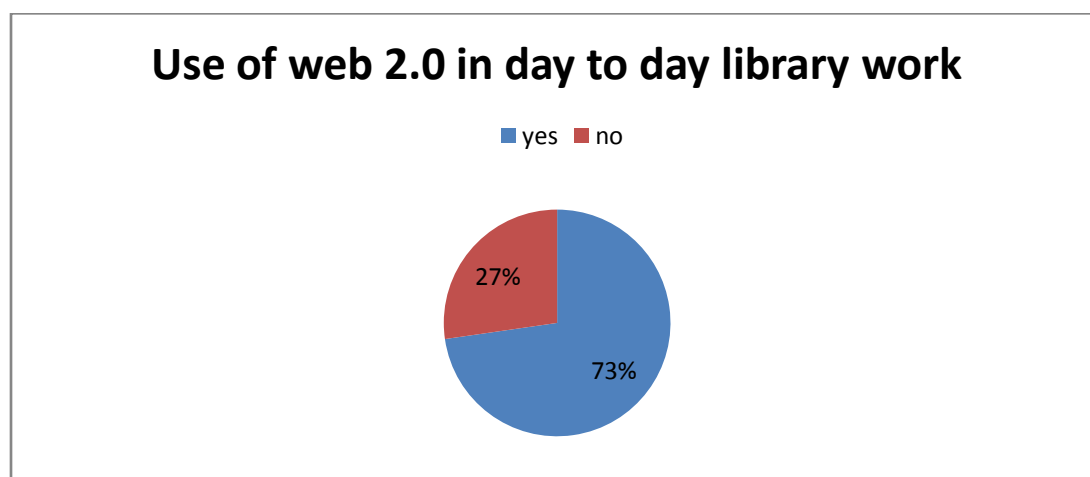


Figure: 2 - Use of web 2.0 in day to day library work

Figure: 2 highlights, out of 35 college librarians in Mumbai 73% college librarians use web 2.0 tools in the day to day library work.

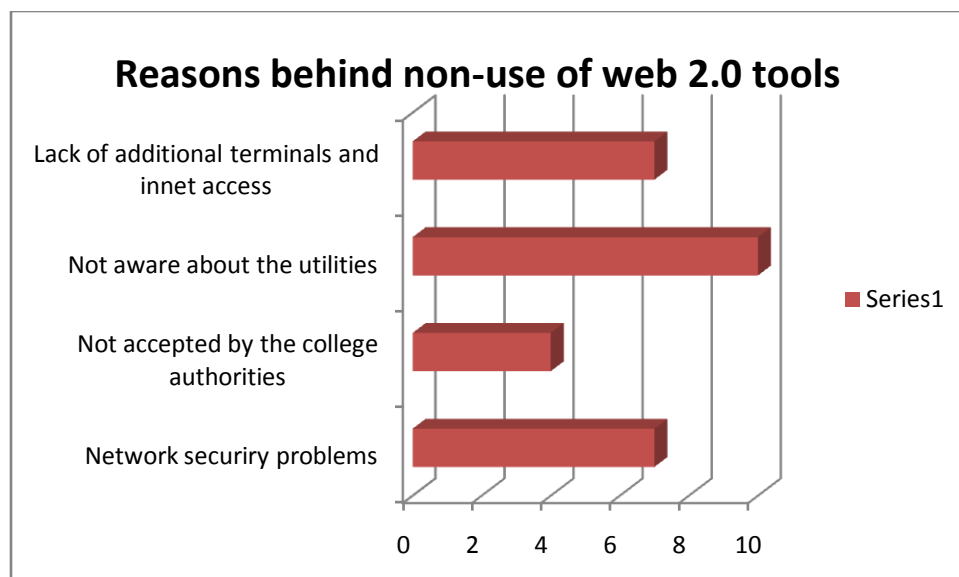


Figure: 3 - Reasons behind non-use of web 2.0 tools

Figure: 3 Explore reasons behind non-application of web 2.0 tools by some academic librarians in Mumbai. Out of the respondents who are not using web 2.0 tools 29% respondents are not aware about the application of web 2.0 utilities, 11.4% are not much familiar to the web 2.0 applications. 20% respondents have problem of availability of terminals and internet connections. 20% respondents are not able to use web 2.0 applications due to institutional internet security problems such as firewalls.

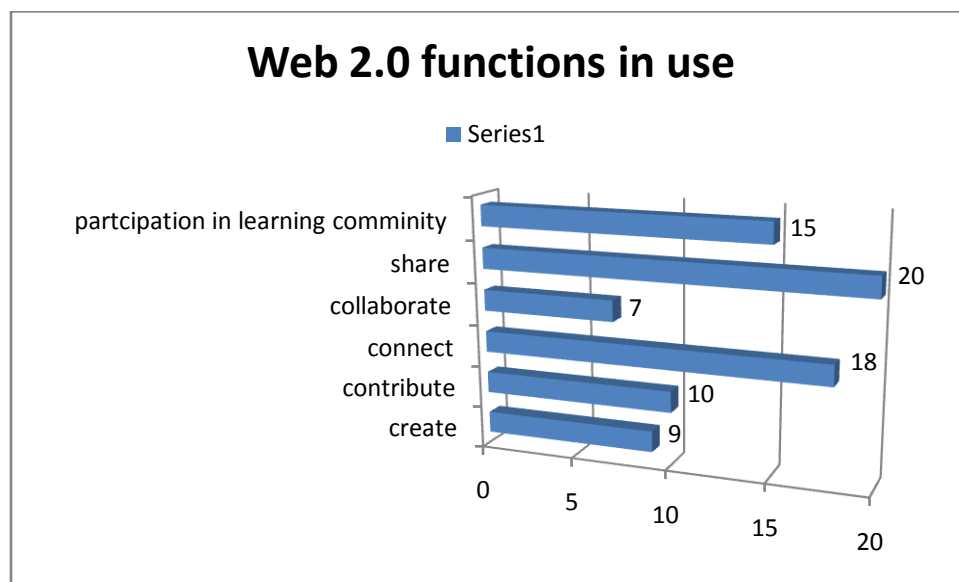


Figure: 4 – Web 2.0 functions in use

According to Figure 4 many librarians i.e. 57% are using social networking sites for highlighting resources and for communicating, sharing and connecting with the library users. Only 25.7% librarians create and compile information to publish it on library blogs. 42.9% librarians participate in learning communities to share their knowledge and experiences. It shows that majority of librarians presently using web 2.0 applications only to share and connect with each other and that is through social networking sites.

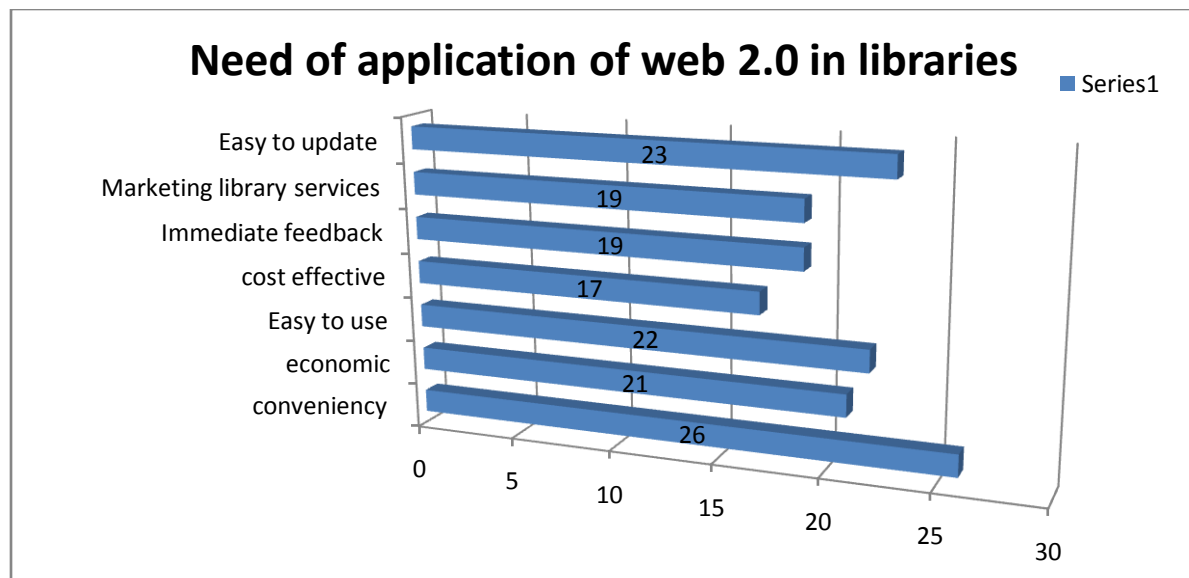


Figure: 5 – Need of web 2.0 applications in libraries

As per Figure: 5 majority of the library professionals are in favour of using web 2.0 tools. As these tools are convenient, cost effective, easy to update, easy to use, as well as it facilitate immediate feedback and a useful tool for marketing library services and collection.

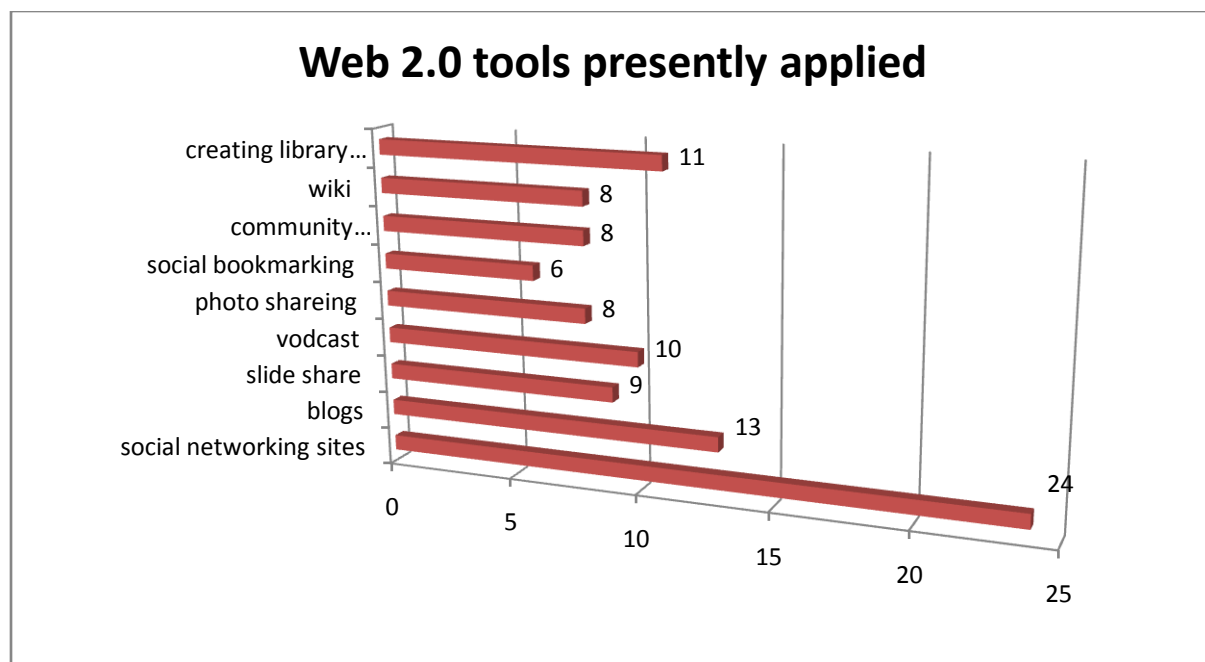


Figure: 6- Web 2.0 tools presently applied

Figure 6 highlights that 68% college librarians in Mumbai are using social networking sites for providing library services. 37% librarians have created library blogs to provide library services through blogs. It shows that very few librarians are actually using and applying all the web 2.0 tools to provide effective library services in their day to day work.

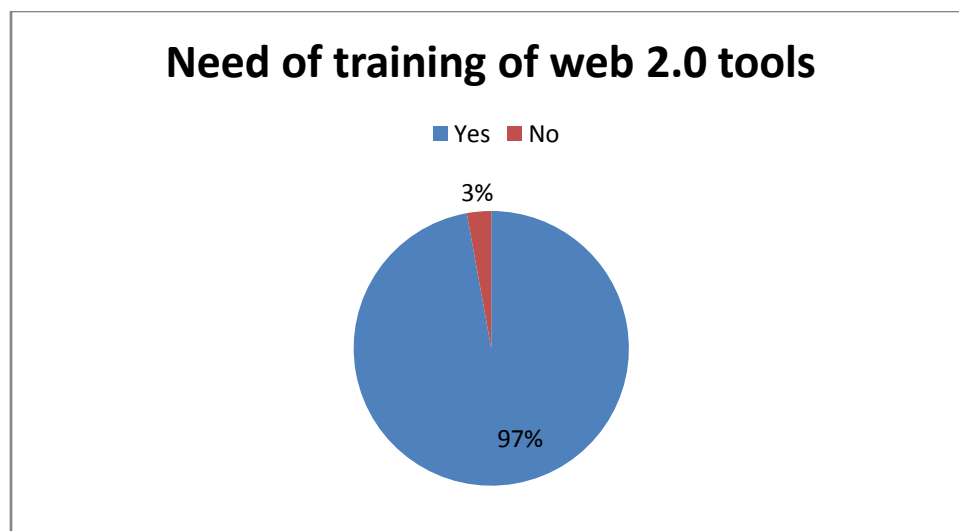


Figure: 7 – Need of training for the best use of web 2.0 tools

In Figure 7, views of librarians are presented regarding need of training of web 2.0 tools. 97% college librarians feel that there is need of training regarding application of web 2.0 tools for its optimum utilization and best application.

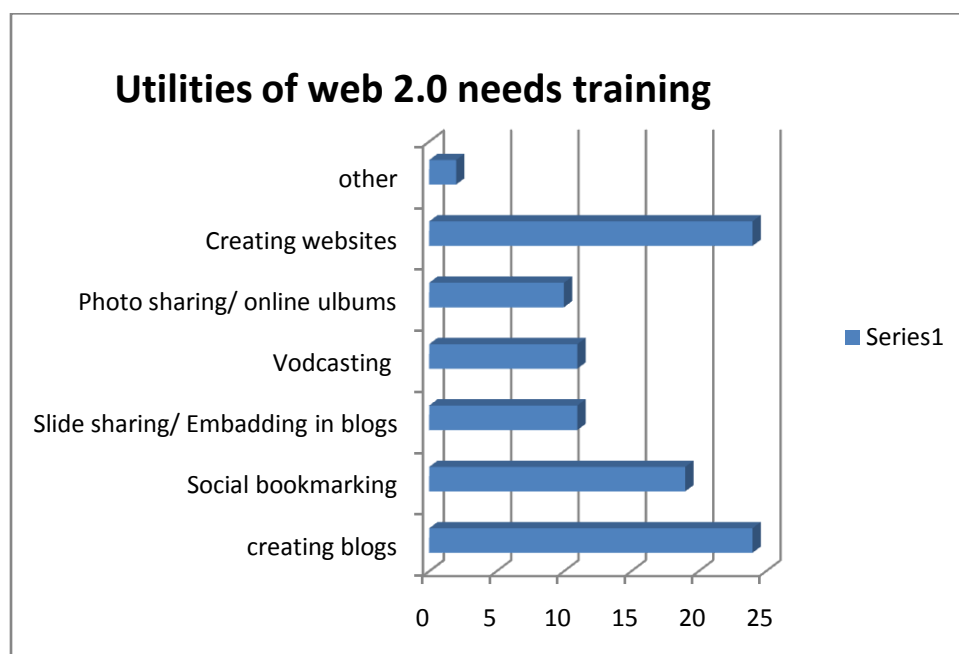


Figure: 8 – Utilities of web 2.0 needs training

As presented in Figure: 8, 68% librarians think training should be provided for creating blogs and websites through open source software. Some librarians responded that they are not much familiar to apply major utilities of web 2.0 therefore training is an urgent need for its application in libraries. Few librarians want to know about embedding Power Point Presentations, slideshows and Shelfari on library blogs.

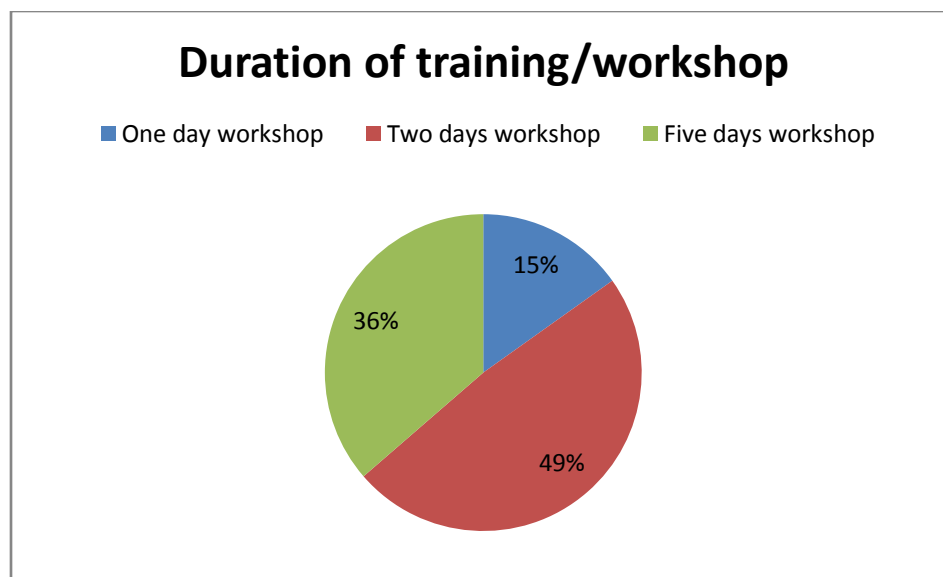


Figure: 9 – Duration of training

Considering the opinion of librarians about need of training the feedback was collected about the duration of training they require regarding web 2.0. Figure 9 shows 49% of librarians are of opinion that, two days workshop is desirable for the same.

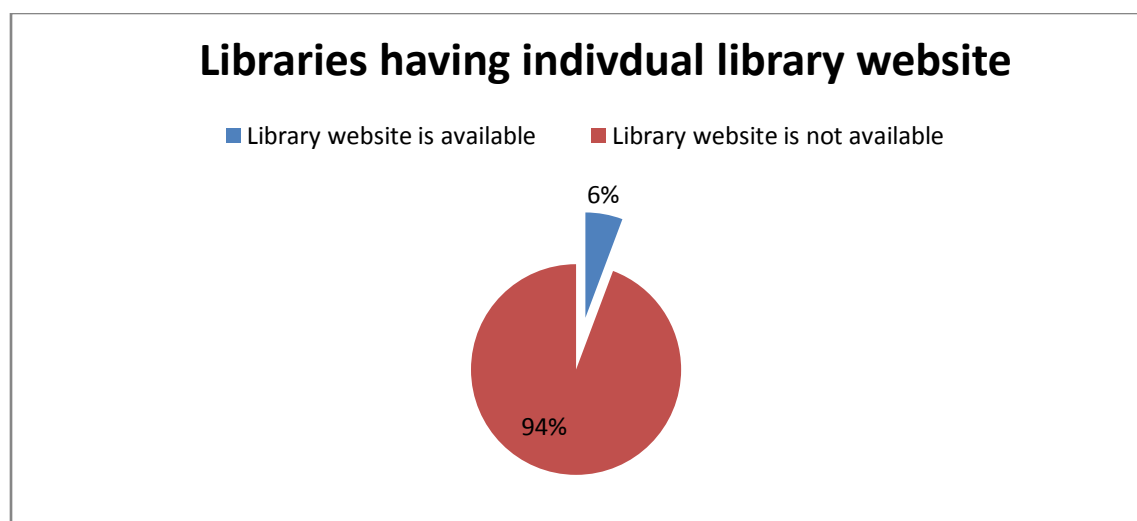


Figure: 10 – Libraries having separate library website

It was observed that 94% of the college libraries in Mumbai do not have an individual library website. And out of 6% libraries having their own library website only 2 librarians developed their library website on their own using web 2.0 tools and open source software.

After studying the library blogs of different college libraries it was observed that very few library blogs applied major utilities of web 2.0 applicable for libraries such as slideshows, Shelfari, availability of feedback forms and statistical count on the library blogs, etc. Figure 11 will present the information about number of library blogs available with such utilities.

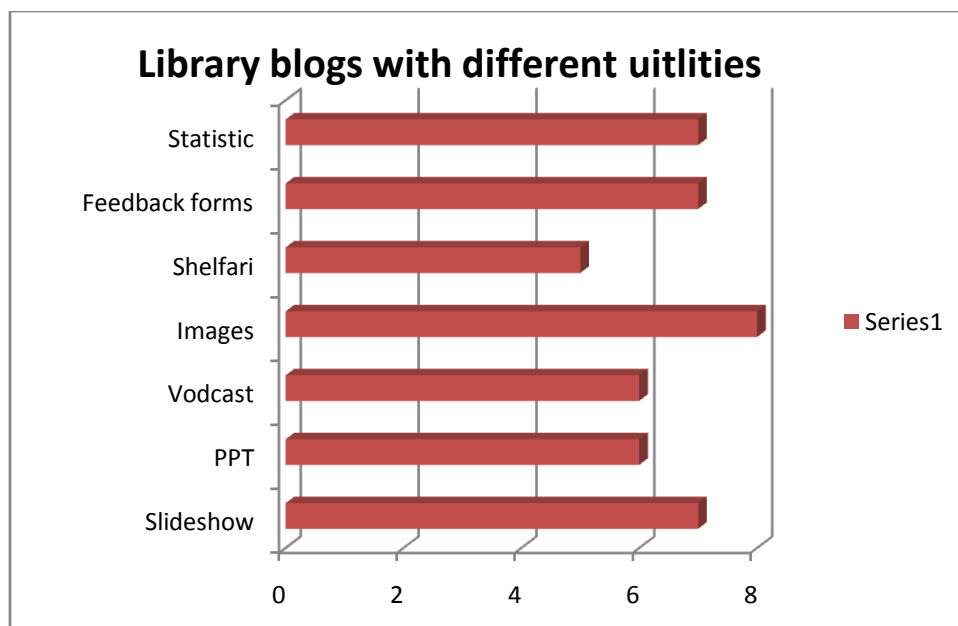


Figure: 11 – Library blogs with different utilities

After going through the library blogs of respondent libraries it was observed that major blogs use images to make the blogs attractive and eye-catching. Some of them have added slideshows, feedback forms and statistics of page views. Very few blogs have embedded Power Point Presentations and Shelfari on the library blogs.

Selective college librarians have created multiple informative blogs to provide different services through blogs, such as blog for previous question papers for students, blog for highlighting current contents of journals, for providing quick links to open sources available on web. 11.4% respondents have a separate library website. Only two college librarians from the respondents have created their own library website by using web 2.0 tools. Only 3% library blogs provides book reviews and conveyed research tips.

Very few libraries (6%) have created individual blogs for providing career awareness and guidance services. Such blogs facilitate information about various competitive examinations and the schedules of such examinations, current job recruitments, news about career events organized by their institutions, useful links related to career and competitive examinations, Power Point Presentations, etc.

Many librarians (68.6%) have created a library facebook page. Some libraries have used other social networking sites mainly to attract youth. As social networking sites are very popular among students, college libraries receives more users through social networking, who are more familiar and have influence of such ICT and web 2.0 tools.

Best practices for integrating web 2.0 tools in library services:

- 1) Libraries may use vodcasts and podcasts for library orientation, for preparing user manuals of library software and databases with the help of print screens. Long videos should be avoided as it requires high-speed internet connectivity to view such videos.
- 2) After preparing such vodcasts and podcasts it can be embedded on library blogs.
- 3) Libraries should create blogs in order to cater to the needs of specific groups of patrons. However the number of blogs should not be too high or else it will lead to scattering the users across the blogs which will result in very low number of participants in each blog.
- 4) College libraries receive UG and PG level students and faculties as major library users. Therefore research blog can be created to initiate the research activities within an institution. Open sources available on internet for researchers can be explain and explore from such research blog.
- 5) Web 2.0 tools are community based training applications, therefore the support and participation of students and faculty members is essential for the success of web 2.0 tools. Therefore they should be taught to use these tools in order to form an intellectual virtual community.
- 6) Links for library blogs or other web 2.0 tools created by library should be provided on home page of institution's website.

- 7) Libraries may create Wiki account, where students and teachers can create content, providing users with an opportunity to contribute in the virtual community through wiki.
- 8) Libraries should provide RSS feeds to communicate and update students and faculty members about forthcoming events and new collection added in the library.

Conclusion:

Internet has made a massive impact on modern life. The overwhelming success of Internet services indicates that libraries have to evolve and change to meet the needs of modern users. The application of web 2.0 can easily help librarians to survive and flourish in the internet age. Libraries can use blogs as promotional tool to inform users about changes, additions and other developments in library services and collections as well as to market library services.

Library professionals should tap the potential of wikis by creating Wiki accounts for the library. Wikis can be used by the libraries for publicizing the collection and distributing the knowledge resources and open source software. Wikis facilitate to group the users therefore libraries can create groups according to the subject streams of students to provide information as per subject interest.

Librarians should note that lack of timely updating discourages the use of blogs. It was observed that very few blogs have been updated within weekly to monthly duration. Blog entries should be updated frequently so that students feel that the blog is active and alive.

There must be content and purpose in using web 2.0 tools. The complexity of technology should not take precedence over its pedagogical relevance. The sensible use of these tools can lead to conversion of libraries into active knowledge hubs. Library professionals must use web 2.0 tools to offer traditional services in an innovative manner and fulfil the information needs of the techno-savvy users.

While a lot of the discussion about Library 2.0 involves technology, libraries with limited technology funding or in communities affected by the digital divide can still work toward web 2.0. As web 2.0 tools are open source, librarians should develop ideas for applying web 2.0 to facilitate various library services.

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